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Building a Creativity Room

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Building a Creativity Room
by

Terry Reding

An Abstract of a Project
in
Creative Studies

Submitted in Partial Fulfillment
Of the Requirements
For the Degree of

Master of Science

December 2008

Buffalo State College
State University of New York
Department of Creative Studies

ABSTRACT OF PROJECT

This project is about the construction of a creativity room in my home that allows for work, study, play and relaxation. This room is designed and organized in a way to promote creativity. Throughout the remodeling and construction stages, problem solving techniques and tools were utilized and documented in a journal. I also took into consideration ideas learned in creative studies courses and creativity literature to make the room as open to creativity as possible.

_____ Date

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Dates of Approval: _____

Cynthia Burnett
Lecturer - Project Advisor

Terry Reding
Master of Science Candidate

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At the start of this master's project, I knew construction of the creativity room was going to be a major part of my life for at least the next several months. However, I had not fully considered the impact this reconstruction project would have on my wife, Monica. I could not have completed this project without the support Monica provided me with from the very start to the very end. There were several very challenging days, but we got through them together. I also want to acknowledge the support I received from my brother Don, who throughout the process answered my questions, offered suggestions, and provided tools to make my job easier. I would like to extend my gratitude to my project advisor, Cyndi Burnett, and to fellow classmates who offered encouragement and guidance.

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Section One: Background to the Project

Purpose

A commonly held belief is that creativity is evidenced by a person's ability to act, dance, draw, paint, or sing. Since I am not gifted in these areas, for most of my life I did not consider myself to be creative. In my graduate studies I have learned that creativity is not limited to fine arts. Creative talents can be seen in many forms. The purpose of this project was to show a different way to express creativity. My personal creative talents are evidenced by my final product; the creativity room.

While solving problems, each person uses strategies that help him or her to find workable solutions. Sometimes these solutions come from a person's previous experiences. Early experiences may be the driving force in how the new problem is approached and may be combined with new options. Those who lack experience may approach the problem in a completely different way. Although I am not a professional builder, I have chosen to construct a room, not only to build on a skill that I already possess, but to document the process in order to see areas where problem solving techniques are used.

As I go through the process of remodeling the room and building the bookcases, I will be creating a product that I can be proud to say that I made. It will be a valuable addition to our home as well as a fulfillment of the requirements of the Creative Studies Master's Degree. An additional purpose of this project is to provide a guideline for others that are interested in building a similar project.

Hopefully, the problems that I encountered on the way and my explanation of how I dealt with those problems will be beneficial to those who read this write-up.

Description

The decision to build a creativity room came to me while brainstorming the options to which I would feel comfortable devoting much time and effort. I have done remodeling projects throughout our home and have enjoyed seeing the many changes that take place as each project nears its completion. In our home, my wife and I have a room that we have been talking about remodeling for quite some time now. It was originally a bedroom for our daughter, but since she has moved away, the room has predominantly been used for storage. It was decided that this room could be completely changed by making the room more comfortable, inviting, and modern while still maintaining space for storage.

Our house is an older farmhouse; therefore, the walls were not constructed from drywall, but were made of lath and plaster. The problem with these types of walls is that they are not flat and smooth like newer walls. They were also in need of repair since many things have been hung throughout the room over the years. Additionally, the floor needed to be redone. The existing floor was covered with carpeting that needed to be replaced and the carpeting was covering defects in the floor. It was decided that the floor would be covered with a hardwood oak laminate. I had worked with other types of flooring, but this oak laminate installation would be a new experience for me.

A project this large demanded the use of many tools. In order to complete a project similar to the one I did, it may not be a requirement to own or to be able

to use all of the tools that are discussed in this write-up, but, just like creative problem solving, the more tools one has and is comfortable using, the better and easier the task becomes. I am fortunate that I have been able to acquire many tools in my life and in instances where I did not own the correct tool, I was either able to borrow one or substitute an acceptable option.

Rationale for Selection

Over the last 35 years, my wife and I have lived in the same home and have remodeled many of the rooms. Our children have grown and have moved away leaving us with some extra space. The room that I have chosen to convert to a creativity room has been used almost exclusively for storage space for several years now. We discussed how the room could become more inviting and useful if we took time to renovate.

I really enjoy opportunities to work with my hands. However, since I have changed careers and now have an office job, I rarely, if ever, have the chance to utilize these skills. The timing of the master's project was ideal for me since redoing the room was something that I wanted to do, would enjoy doing, and would help meet the requirements of my degree. This project gave me the opportunity to build on skills that I possess. By completing this project, I proved to myself that I could envision, design, and construct a creativity room and develop solutions to problems that I encountered along the way.

Most home improvement projects add value to the home and this was advantageous for me as well. I wanted to create a room that would give our children and our grandchildren a place to relax, play, learn, and create when they

came to visit. The construction of a floor to ceiling bookcase would help us to organize many items that I would want to include in this creativity room.

Creative Contribution to Myself and Others

One of the benefits I have gained while working on this project has been becoming more aware of my problem solving skills and my thinking processes. I have always been a problem solver, but I feel that this project has encouraged me to think creatively about the different ways I approach problems. There were many times I found myself using divergent and convergent tools while trying to find the best solution to a problem. I noticed that I did not simply select the first idea that I came up with to solve various problems. I tried to envision the solution to problems as well. This was documented from the very beginning of the project. I imagined the room with different colors, flooring, and layout of the bookcases that I was going to be adding to the room. In most cases, the original ideas were not the options finally chosen.

This room gave me a chance to try new ideas. As I shared ideas with my wife, she too was energized by the vision of a creativity room. The options that became available were endless as we discussed what materials to use and items that would be hung on the walls.

Having an area in our home that has all of the materials, space, and comfort that may promote creativity is going to be gratifying. It is my hope that the room is enjoyed often by our children and grandchildren when they come to visit. I know that both my wife and I are looking forward to having a creative space where we can read, study, relax, and work on projects.

Section Two: Pertinent Literature

Narrative Introduction and Pertinent Elaboration

This project focused more on the hands-on experience of creating a room and the components that would be placed in the room, than it did on the creativity literature itself. Magazines such as *American Woodworker* and *The Family Handyman* include sections on woodworking tips. I knew I needed precise cuts, but this was going to be difficult when working with large, 4' X 8' sheets of plywood. Most do-it-yourselfers would simply clamp a straight board to the new material and cut along the edge. But, to ensure all pieces of the bookcase would fit snugly together, I looked for a tool designed specifically for making accurate cuts. One of the most useful tips I gained from the magazines was to use a circular saw cutting guide as was shown in the October 2004 issue of *Family Handyman* (Wiebe, p. 18). While shopping for supplies, I found an aluminum version of the tool shown in the magazine at a very reasonable cost. This proved to be the perfect tool for this job.

In Jonathan Vehar's article *Innovative Space Exploration: Designing Your Optimal Creative Environment* (2008) he stated,

Although there is no research that shows what is The Best Physical Environment to support innovation, there is research that shows that people learn and think better in physical environments that suit their personal preference. And there is research that shows that environments

can stimulate creativity. (Retrieved November 16, 2008, from <http://www.thinksmart.com/2/articles/idealenvironment.html>)

As I planned for the design of my creativity room, I took into consideration physical dimensions that described my ideal creative environment. Dimensions considered included color, light, sparseness/clutter, mobility, and comfort. I function best in light areas without clutter so I designed the room to feel more spacious. This had an impact on the color choice, lighting system, and the design of the storage areas. I built many adjustable shelves so that everything had its own place. A soft recliner was added for comfort and the toys and games were added to give this space an informal design.

Throughout the process, I found myself using problem solving techniques learned in the creative studies courses of the graduate degree program. The guidelines learned early on from text books such as *Creativity Unbound* (Vehar, Miller, & Firestien, 2001), relating to the divergent and convergent tools, were taken into consideration many times as I encountered problems and challenges.

An example of the use of divergent thinking guidelines occurred while making a decision on where and how to install the additional lighting. I had originally planned to install the lights closer to the bookcase, but could not figure out how to control the on/off switch without the wiring being obtrusive and detracting from the clean lines of the room. Options included the use of battery powered lighting, cutting holes through the lath and plaster for new wiring, running Wiremold from existing baseboard outlets to the new fixtures, or eliminating the additional lighting altogether. I deferred judgment, and

considered each option carefully, without ruling out any ideas, before making my final decision. The end result was a totally changed paradigm where all aspects of the lighting had changed. I decided to go with a track lighting system, move the location to the opposite side of the room, and do away with the idea of using a more expensive Wiremold product by coming directly through the attic wall.

Tools such as Brainstorming, Card Sort, and Praise First, learned from Creative Problem Solving books such as *Creative Approaches to Problem Solving* (Isaksen, Dorval, & Treffinger, 2000), *Toolbox for Creative Problem Solving* (Isaksen, Dorval, & Treffinger, 1998), and *Creativity Unbound: An Introduction to Creative Process* (Miller, Vehar, & Firestien, 2001) were used throughout the project. While making a decision on the color of paint to use, the Card Sort tool proved to be helpful. My wife and I picked out seven color sample cards, stood in the aisle of the paint section of Home Depot, and followed the procedure for ranking choices outlined in the texts.

Additional useful texts were *The Art of Thinking: A Guide to Critical and Creative Thought* (Rugiero, 2007) and *Leading On the Creative Edge: Gaining Competitive Advantage Through the Power of Creative Problem Solving* (Firestien, 1996). I particularly found Firestien's examples of novel solutions to problems insightful. One such example was the use of an inexpensive cooking spray to solve a very expensive manufacturing problem. I too sought ways to solve problems in novel ways. I have found parallels between my search for inexpensive solutions and the experts'.

Section Three: Process Plan

Introduction

The overall project process was divided into several parts:

1. Planning for various elements of the project and a drawing of the room's new layout. This layout included the wall unit corner bookcases that would later be built. Time was included for clearing out the items that had been stored in the room.
2. Preparing the walls and ceiling. This preparation included adding electrical outlets and lighting; skim coating the walls to make them smooth; and adding a fresh coat of paint to brighten up the room. Once all drywall work and painting were complete, I proceeded to stage three.
3. Installing new laminate oak flooring replacing worn carpeting and covering defects in the existing floor. This part included cutting and taping a foam underlayment in place and then cutting each board to size and snapping it in place.
4. Making the curtains to add a spark of color to the room. This included cutting the material to size, sewing the header and hems, and installing the mounting hardware on the window frame.
5. Constructing the bookshelves. The construction included detailed measuring and cutting of approximately 60 individual pieces; assembling, sanding, and finishing. This most complicated piece of workmanship added a dramatic, focal point to the room, providing much needed storage space. A hinged, drop-down desk was added for functionality.

6. Framing the artwork. This included selecting pieces saved from our children's growing-up years; mounting in appropriately sized frames; and hanging. These pieces were accentuated by the track-lighting.
7. Constructing the toy box/bench. This construction included additional cutting layouts, sawing, adding a piano-hinged lid, and casters for mobility. Again, pieces required a durable, polyurethane finish.

As I proceeded with the project, I documented my progress with photographs. These photographs are included in Section Seven: Appendix B.

Project Final Timeline

Several hours were devoted to considering everything from the color of the room to the design of the bookcases. The ideas that were discussed in the early planning stages were often not the options that were chosen. At times, I found it necessary to revise my original plans. The original drawings would have been useable, but new and improved ideas would occur to me as I worked. Often, I would think I was satisfied with the plan, but then would find a way to make it better. Part one, the planning, drawing, and decision-making processes, accounted for about 10 hours of this project.

I had allowed for about two hours to empty out the room. Since storage had become the primary use of this room, there was much to move. I had carefully predicted the amount of time that this project would take, but found that my predictions missed the mark that I had set for myself on the following tasks.

Preparing the room included skim coating the walls with a drywall compound that would fix blemishes in the walls resulting from years of hanging pictures and posters. This skim coating would also help to even out the older walls that were not completely smooth and flat. I had done this type of work before, but it was not a job that I enjoyed doing. It was hard work that required a special talent in order to have an acceptable outcome. Since my skill in this area was not a mastered skill, this part of the project took much longer than I had expected. I had to repeatedly apply coats of compound, sand the dried surface, and examine for flaws. A paint primer was added and walls and ceiling were again inspected and touched up. The time that was allotted was in fact nearly doubled. There were about twenty hours spent on part two of the project.

As the project continued, it was decided that an extra source of overhead lighting and additional electrical outlets were needed. Although I had not written this into my timeline, adding this step was necessary before continuing with the painting process. I decided to use a product called Wiremold to add extra outlets. This product allows a do-it-yourselfer to add a route for the wire on the **outside** of the existing baseboard, which is aesthetically pleasing and doesn't require going **within** the walls. Unfortunately, it also meant that another trip to the home improvement store was necessary.

Track lights were added along with a wall switch to control them. Adding this lighting system could have been accomplished by using the Wiremold product. However, after brainstorming placement of the lights I found that I could come through the attic wall for the switch and through the attic floor for the

lighting. Since the Wiremold product is fairly expensive, this option proved to be the best choice. Three hours were spent on the electrical jobs.

Since the surfaces were properly prepared, painting of the walls and ceiling went well. I applied two coats of paint to the ceiling and two coats to the walls. Although the six hours that I had allowed for painting were right on, I had not allowed for the amount of time required to paint the trim and the two doors in the room. This more tedious work took about seven hours to complete.

Now that the painting and the wiring were complete, I was able to continue with part three, installing the prefinished laminate oak flooring. There was some preparation that was necessary before putting down the boards. It was best to install the flooring over a foam underlayment. This was a fairly easy process of cutting strips of black foam to size and taping them together in order to cover the entire floor. Since the laminate was a floating floor, this underlayment provided protection and sound insulation. It only took about one half hour to install the underlayment.

The flooring was not quite as simple. Although the flooring materials are a manageable size and snap together, there is almost always some frustration involved in making everything fit. With several corners and a chimney to go around there was a fair amount of cutting involved. I had moved my miter saw into the attic so that I did not have to go outside for each cut, saving me both steps and time. Approximately eight hours later, the floor was complete except for the trim that would be added around the perimeter.

Unfortunately, the quarter round trim was not prefinished so this added yet another step. The miter saw was still set up in the attic, so cutting the trim for the floor required less legwork. I spent about two hours the following morning cutting the trim with a compound-sliding miter saw. I used a cordless finish nailer to install the trim.

The room was looking much better now, with the newly painted walls and floor. The satisfaction of seeing favorable changes gave me the impetus to add curtains (part four). I had thought my wife would be making these, but she convinced me it would be fun and satisfying for me if I made them myself. We had picked out a colorful, motorcycle-patterned fabric. I worked about three hours at the sewing machine, a machine that I had never used before, and was very pleased and proud of my accomplishment. The curtains were hung and now the room had some contrasting colors, which made the curtains "pop".

Part five consisted of cutting and assembling the bookcases. Part of the preparation time was calculating the cutlist and the placement of each piece on one of the five sheets of oak plywood. Placement on the sheets was very important because there is a definite running pattern on each sheet. (It was important to get this cutlist correct since the plywood cost nearly fifty dollars per sheet.) Cutting the pieces necessitated the use of several types of saws. A circular saw was used to make long cuts in the plywood, the sliding miter saw was used to make some of the cuts to length, a band saw was used to make intricate angle cuts, and a table saw was used to make each piece a uniform width. Since plywood easily splinters, masking tape was applied to each cutting

line to help eliminate damage to the wood. The cutting and sorting of nearly sixty pieces took about ten hours to complete.

I spent two, full, eight-hour days assembling the six sections of the bookcase. I had made a visit to my brother's house to get tips on assembly. This time spent on gathering this information proved to be helpful. As assembly took place, some resizing of the parts was necessary.

Plywood is a laminate and when viewed from the edge, the laminated layers show. In order to make the wood appear to be solid wood, a thin piece of oak was applied to each exposed edge. This required the use of a table saw to cut thin strips followed by the use of a planer to make the strips both uniformly thick and smooth. There were many surface areas to cover. Each of the twenty-four shelves had an exposed edge and there were many exposed edges on the framework as well. After approximately eight hours passed and a large pile of sawdust had accumulated, I had glued and nailed the trim to the plywood edges.

I then carried the bookcases into the house to make sure that everything was fitting together exactly as planned. This step was called a "dry fit". Carrying the larger pieces required the help of my wife who, although happy to see the near completed furniture put into the room, did not enjoy this part of the project. Seeing that the components fit nicely in the room, the next step was to apply two coats of polyurethane.

I carried the shelves back to the garage for finishing because there was ample room to lay them out to be finished on top and bottom. I had to leave the bookcase framework in the room to apply the polyurethane. Even with space for

drying, the temperature and humidity levels slowed the drying process so it took a few days. Of course, this meant I went over my time estimate.

When the polyurethane was completely dry, the bookcases were again set into place, this time being permanently secured to the walls and to each other, so that there was no danger of tipping. Shelves were reinstalled and were now ready to be filled. To complete the assembly and to give the unit a “built in” appearance, molding was cut and attached around the sides and the top of the bookcases, which took about two hours to complete. Although the bookcases were now secure and had the finishing touches added, I still needed to add the dropdown desk before I could say I was done.

At this point, I was struggling with the design of the desk, so I decided to work on the last part, the toy box, next. I had cut out the pieces for the toy box at the time I cut out the parts of the bookcase and had purchased the hardware for the lid. The only major step left was assembly, which would take about one day. I used a special pocket joint tool, which made assembly an easy task. I did need to resize some of the parts since I had altered the original plans. However, within a couple of hours, I had completed the basic assembly of the toy box and had checked the operation of the hardware. I used a piano hinge to make sure the lid would function flawlessly for many years. I also installed a spring loaded closer so that the lid would not slam down on little fingers.

I removed the hardware and applied two coats of polyurethane to the toy box. The finished product looked great, but did not look especially intriguing or exciting. I decided that adding some color would make this storage unit look

more inviting for children. I searched the internet to see how much it would cost to buy precut lettering, then decided that I should make the letters myself! Using a band saw, I cut out the letters, then painted them and attached them to the front of the box. Just adding four colorful letters, “T” “O” “Y” “S” in primary colors, gave the plain box more character and personality.

I purchased hinges for the dropdown desk and proceeded to attach it to the bookcase hoping that an idea for the support leg would come to me. With the desktop in place, my wife and I brainstormed options for the additional support. I decided to build a matching mini bookcase as the necessary support leg. This mini bookcase would also double as a storage area for smaller supplies, such as markers, pens, and chalk. An added benefit of this choice was that I had enough material left over from the larger project so there was no additional cost. In all, this part of the plan added about four hours from start to finish.

To complete the room, I decided to add a pair of bi-fold doors to the closet. The doors were painted and installed, but not without their share of problems. The top doorjamb was not level and required some tedious and time-consuming labor to allow for proper operation of the doors. The installation that I had thought would take about ten minutes to complete, turned into about three hours of reconstruction. With the doors hung, my wife decided to use some of the same window covering material to make a curtain for the opening that would convert the closet into a puppet theater.

I purchased frames for artwork that our children had made years ago. My wife and I spent about an hour hanging the artwork, the chalkboard, and the

white board. We then started to add the items to the bookcase to give the room the final touch.

Planning & drawing (Room & bookcases)	16 Hours
Cleaning out the room	2 Hours
Preparing walls and ceiling	20 Hours
Painting walls and ceiling	6 Hours
Painting trim and doors	7 Hours
Preparing floor	1 Hour
Installing flooring	8 Hours
Installing trim	2 Hours
Making and hanging curtains	3 Hours
Constructing bookcases	38 Hours
Applying polyurethane to bookcases	10 Hours
Installing bookcases	2 Hours
Constructing toy box	8 Hours
Applying polyurethane to toy box	3 Hours
Cutting, painting, and attaching letters	4 Hours
Constructing “mini bookcase support”	4 Hours
Framing and hanging artwork	3 Hour
Hanging closet doors	3 Hours
Adding books and accessories	2 Hours
Total project hours	142 Hours

Section Four: Outcomes

Introduction

The final product was the result of many hours of careful planning and hard work. Problems were encountered throughout the process, but each problem was dealt with in a way that led to a pleasing solution. The completed room provides me with a product that I can take pride in, knowing that I was responsible for every one of the many improvements.

This master's project included several outcomes, which led to the final outcome of the creativity room:

- Resurfacing of the walls
- Painting of walls and trim
- Additional electrical outlets
- Improved lighting
- New flooring
- Construction of bookcases
- Construction of toy box/bench

Outcomes

Resurfacing of the walls

My first outcome was the resurfacing of the walls, which may be seen in Figure 1. The decision to resurface instead of replace the walls with new wallboard turned out to be a very good choice. If I had chosen to completely replace the walls instead of filling in low spots with a coat of drywall compound,

the project would have been both more expensive and more time consuming.

Although the walls may not be quite as smooth as new drywall, the look is perfect for our older house. The cheaper solution made a remarkable difference and the texture of the surface is even more appropriate for the time that the home was built.



Figure 1. Resurfacing of walls.

Skim coating requires skill. I have improved but have not yet mastered this technique. The amount of time that it took me to do this job would have been much less if I had been more talented and comfortable using the required tools and material. The time spent definitely helped me become better at this skill, but

I doubt I could ever get to a professional level in this field. I believe part of what hinders my ability is the fact that I do not enjoy drywall-mudding work.

Painting of walls and trim



Figure 2. Painting of walls and trim.

The painting of the room (see Figure 2) was one of the outcomes that most dramatically changed the look and feel of the creativity room. Much time was spent on choosing the color for the room. My wife and I wanted to find a color that we could both agree upon and that would complement the natural wood products we would be adding to the room. We wanted a color that would be bright, cheerful, and timeless-we wanted no fad colors because we didn't want

to have to repaint soon. As the room came together with the oak flooring and the oak shelves, the pale daffodil color that we picked was a perfect choice.

Additional electrical outlets



Figure 3. Wiremold outlet.

This room originally had only one electrical outlet and one overhead ceiling light. I knew that I would enjoy the room more if I could run stereo equipment, my computer, and other electrical components. I also knew that adding more outlets and wiring would become a major issue. Usually, the wiring is within the walls and can be difficult or impossible to add without destroying the existing walls. I recently came upon a product, Wiremold, that allowed the user to install additional wiring without having to go inside the walls.

Improved lighting

The original plan for the additional lighting called for the use of the Wiremold as well. I later changed my mind on the placement of the track lighting, which negated the need for more of the Wiremold.



Figure 4. Track lighting system.

The lighting was installed by drilling directly through the walls and ceiling of the attic. The outcome was a more traditional wiring look and was cost effective as well (see Figure 4).

New flooring

The choice for oak flooring added beauty to the room, and covered some imperfections in the existing floor. This room had other uses throughout the years so there were patched places in the floor (see Figure 5). It was still structurally strong, so covering the surface with a new, more modern material proved to be a wise move.



Figure 5. Laminate flooring.

One drawback that became apparent after the installation of the floor was that the room echoed because of all of the hard surfaces. We just added soft objects, such as area rugs to help cut down on this echoing problem.

Construction of the bookcase

Without question, the floor to ceiling bookcases that were built and installed completely changed the feel of the room (see Figure 6). The shelving units added an abundant amount of storage space, a non-obtrusive desk area, and character to the room.



Figure 6. Corner bookcases.

The cost of creating the corner-shelving units did end up being more than I had planned, but I am confident that the enjoyment that will be gained will more than offset the additional costs. Although the bookcases appear to be built into the wall, I constructed the unit in such a way that the shelves can move with us if we choose to relocate.

Construction of toy box/bench



Figure 7. Completed toy box/bench.

The toy box adds more storage and is also suitable as a bench (see Figure 7). There needed to be a balance between available storage space and physical size when constructing this toy box. I wanted to have enough space to hold the many toys that have been purchased for our grandchildren while also making the height low enough for the children to sit on as a bench. I felt that I hit the mark with storage size, but the box may have been better suited to small children if I had made it a lower overall height.

The lettering that was added to the toy box made the box much more interesting. The addition of the informal font and multiple colors was well worth the time invested. I felt that this decoration spiced up the entire room.

I tried to include in my creativity room the materials that would foster innovative thinking in children and adults. I have included a chalkboard, white board, and a writing area, as seen in Figure 8. The chalkboard and whiteboard allow one to practice, take risks, make mistakes, erase and fix. The toys, wonder horse, and Puppet Theater encourage imaginative thinking. Building blocks and shape sorters encourage analytical thinking and problem solving for the children, and puzzles and boards games can be played at the drop down table. The room is filled with books, to encourage reflection and critical thinking. The room also allows space for active play.



Figure 8. Completed Creativity Room

Section Five: Key Learnings

Introduction

This master's project has given me the opportunity to learn more about my own individual creativity, motivation, problem solving strategies, and problem solving preferences. The end product proved to me that I am a creative person. I was able to design this room from its very basic beginnings and to develop drawings that would soon come to life. As I documented my progress, I was able to see the strategies I used to work through several problems. In the process, I became more aware of the way in which I approach problems. With this awareness, came the natural tendency to use the problem solving tools learned in the Creative Studies courses to move from challenges/problems to workable solutions.

Content

I learned in my graduate studies that creativity is a blend of insight, imagination, analysis, and action (Puccio, 2002). With this project, I was able to put together several components that together make for a creative environment.

Ekvall's (1996) work on creative climate in the workplace made me examine my own beliefs about creativity and risk taking. Ekvall encouraged a relaxed and playful atmosphere, where employees feel secure enough to take risks. I tried to relate this to the creative space I was building. I chose colors and materials that gave the room a relaxed, happy feeling. The openness and brightness gave a feeling of freedom. I made the room inviting and comfortable for all age groups. I displayed children's artwork to show that every age can

make worthwhile creative contributions. I kept toys on accessible shelves to add an element of playfulness. Supplies used for creating projects, such as markers, crayons, and chinks were made easily accessible.

As discussed in the earlier sections of this paper, completing all of the sub-parts of this project took a large amount of time. I did not find myself feeling bad about investing the time, however, since this project was driven by intrinsic motivation right from the beginning. I found myself thinking about ways to improve on original ideas as I lay in bed at night, as I worked throughout the day, and while driving to and from work. In many instances I could not wait to get home to do another part of the project so that I could see the changes come to life. I was reminded of the work on intrinsic motivation done by Teresa Amabile where she stated, "When people are intrinsically motivated, they engage in the work for the challenge and enjoyment of it. The work itself is motivating" (September-October 1998, p. 79). I am now even more aware of the power of intrinsic motivation. Having a project to work on that was of such value to me and was so enjoyable made the time spent much less demanding.

I discovered once again that doing what you love to do makes everything about a job easier. Even though the work may be hard and time consuming, the satisfaction and pride that one can take in the finished product, more than makes up for the time and energy spent on doing the work. The project that I chose to do for this Master's course was very time consuming, stressful at times, expensive, and frustrating. The end result, however, was rewarding and beautiful. I learned to meet challenges head-on. I was more determined than

ever to find workable, practical, and sometimes novel solutions. I saw growth in my problem solving ability, my construction skills, and my commitment to an assignment.

Process

As I worked on this project I encountered several problems. For example, I had planned a location for the new track lights, but problems soon presented themselves. I took some time to think about those problems. It would have been hard to get the power to both the lights and the switch. After using the ALUo tool (Advantages, Limitations, Unique Qualities, and overcome limitations), a technique for applying the principle of affirmative judgment (Isaksen, Dorval, & Treffinger, 2000), I decided to use the Wiremold system. When I looked further into the cost of this solution, I decided to search for other options that would overcome the major limitation (high cost). The result was a paradigm shift. I moved both the lighting track and the switch to the opposite side of the room making it possible to hide the wiring by coming directly through the attic. This change in lighting location added an additional benefit by highlighting the artwork wall. Throughout the process, I dealt with similar problems: leveling the floor around the chimney and leveling the closet door jam, adjusting for an error on the bookshelf cutlist, etc. In each case, I allowed sufficient time to make use of appropriate problem solving tools. These tools included: brainstorming, card sort, Praise First, and hits/highlighting (Miller, Vehar, & Firestien, 1999).

The dropdown desk area of the bookcase posed a unique challenge for me. I added the convenience of having the desk fold up and out of the way when

it was not in use, but I was not finding a suitable option for supporting one of the corners of the desk when it **was** in use. I had shared some ideas with family and friends about having an attached leg that would fold out when the desk was lowered. Comments I received concerning the leg were not favorable. Some said the leg would seem out of place and would detract from the overall appearance of the bookcase. Because I was determined to get this right before proceeding, I kept putting this assembly off. My problem solving preference, Developer, as determined by the FourSight measure (Puccio, 2002) was holding me back from finishing a job I desperately wanted to complete. People with the Developer preference are very cautious about proceeding and selecting a plan of action. They tend to be nit-picky and strive for perfection. I witnessed this preference in other areas of the project as well, but never as clearly as with this particular problem.

I returned to the brainstorming technique and finally reached a breakthrough for this challenge. As my wife and I shared ideas on possible solutions, an “Aha” moment occurred for me. The option to make one large, boxy leg to set under the desk that could later be moved and stand alone as a small cupboard, triggered the idea of a mini bookcase to set under the corner. With this problem solved, I could not wait to proceed and built the mini bookcase that same afternoon.

Section Six: Conclusion

Introduction

The building of the creativity room presented me with numerous challenges. These challenges gave me many opportunities to use the lessons and tools learned in Creative Studies courses. I was able to put into use several divergent and convergent tools throughout the decision making process. The value of keeping my mind open to new and creative ideas was made clear as this openness often led to improvements over my original ideas. The successful completion of this room was a tribute to the usefulness of Creative Problem Solving in everyday life.

Next Steps

One of the steps following the completion of my master's project will be to build another toy box. I plan to give the toy box that I built for this project to our grandchildren and to make another one for the room that is more suited as a bench for children. Sharing the photographs with friends has led to invitations to do construction projects that they would like me to help them with. I do not plan to take on projects for friends, but I do see these invitations as an opportunity to share my problem solving knowledge and as a way to encourage others that they too can accomplish much if they allow themselves to be creative.

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Section Seven: Appendices

Appendix A – Concept Paper

Appendix B – Sample Sketches, Cutlists, and Photographs

Appendix C – Approximate Costs of Materials

Appendix D – Selected Bibliography

Appendix A
Concept Paper

Building a Creativity Room

Name: Terry Reding Submitted: September 8, 2008

Project Type: I will construct a creativity room in our home that will be a place for everyone in our family to work, study, play, and relax in a comfortable setting. The room will be designed so that it useful for all ages and will be organized in a way that promotes creativity.

What Is This Project About?

This project is a chance to combine many of the skills that have been learned in Creative Studies courses as well as building on the construction skills that I already possess. It is a chance for me to make a change in our home that will add value to both the family enjoyment and monetary value in our home. In order to complete a project of this magnitude, much planning needs to take place. I started the process by completing a PPCo and will use other tools learned throughout my graduate studies, such as brainstorming, ladder of abstraction, card sort, hits, and clustering while making decisions on what paths to follow. I believe that by documenting the progress of this project, I will demonstrate the value of the creativity tools.

Rationale for Choice

I chose this project because I love to do construction and I enjoy seeing positive changes take place. The room that I will be remodeling has been primarily used for storage during the past several years and I look forward to having an additional area where our family can go to study or relax. It will be a challenge to construct an area that is conducive to creativity while still providing needed storage space.

What Will be the Tangible Product(s) or Outcomes?

- A journal of thoughts and drawings
- Examples of creativity tools used while making choices throughout the process
- Refinished walls and ceiling

- Oak flooring
- Built in full wall bookcase and desk area
- Storage space
- Toy box bench – Now we have lots of toys in our house again with the coming of our grandchildren. The toy box will function as a dual purpose item. We are planning on a cushion for the top to make for comfortable seating.
- Framed artwork – My wife and I have saved some of the artwork that our children created over the years. We want to frame and display this artwork as inspiration for our grandchildren.
- Photographs of progress

What Criteria Will You Use To Measure The Effectiveness Of Your Achievement?

- I will compare target dates with actual completion dates
- Walls will be painted
- Bookcase will be filled with supplies and reading materials for all ages
- Workmanship will meet my wife's expectations
- The room will be used by the family
- I will seek reviews from people outside the family

Who Will Be Involved or Influenced; What Will Your Role Be?

I plan to do the majority of the work myself, however, my wife, Monica, will help me develop ideas for the room and help with painting of the walls. While laying the floor and building the bookcase, I will seek advice from my brother and my brother-in-law, who are both very talented in the field of woodworking. I will also rely on Monica to provide encouragement and support throughout the project. I am counting on receiving constructive feedback from fellow class members, my CRS 690 instructor, and my sounding board partner.

When Will This Project Take Place?

At the beginning of the fall 2008 semester I began work on this project. I started by creating drawings and completing a PPCo to help guide me through the process. In the case of this project, the creativity room will be usable, welcoming, and by Master's project goals, be completed by the middle of November. There are always improvements and alterations that can be made. I will continue to add touches to the room over time that will add to the creative climate I am working toward.

Where Will This Project Occur?

The construction of the creativity room will take place in my home in Gainesville, NY. Our house is an old farm house that is over one hundred years old. We continue to renovate. The former occupant used this particular room as a bathroom. When we purchased the home we removed the fixtures and converted the room to a bedroom and latter, as the children moved away, a storage room.

Why Is It Important to Do This?

It is important to me that I support creativity, change, and imagination in our grandchildren. This room will be a safe haven for them where they can express themselves, play, and pursue hobbies.

Personal Learning Goals:

- Further develop my math skills by designing, constructing, and installing a full wall bookshelf
- Increase technical skills while improving the lighting within the room
- Improve leadership skills by working with the family
- Boost time management skills
- Expand my writing skills by keeping a photo journal

How Do You Plan to Achieve Your Goals and Outcomes?

I am planning on closely following the timeline that I have given myself for this project in order to keep myself on or ahead of schedule. I will set aside at least two hours each night of the week with the exception of Sunday. I want to give myself a day off each week so that I do not become too stressed with the project. This will also give me a chance to incubate on the activities that I will be completing in the following week. When there are challenges that I encounter, I will use various tools, such as brainstorming and targeting to help me reach the best decisions to proceed.

Evaluation:

This concept paper will serve as a checklist for my project. I will adhere to the timeline that I have established. Each day I will take a picture of the room and write about the accomplishments. I will discuss the progress with Monica to determine if the timeline needs to be adjusted. Continuous support and feedback from my sounding board partner and classmates will also be part of my

evaluation. I will ask my brother and/or brother-in-law to inspect my construction work. The final evaluation will come from the grandchildren's enjoyment of this space.

Prepare Project Timeline:

- Start now by planning and developing drawings for the room – 10 hours
- First week in September: Completely empty room – 2 hours
- By September 13, 2008: Prepare walls and ceiling for painting (Skim coat and prime) – 10 hours
- By September 20, 2008: Paint walls – 6 hours
- By September 25, 2008: Plan and develop drawings for bookshelf – 6 hours
- By September 25, 2008: Prepare floor for oak laminate – 2 hours
- By September 27, 2008: Install laminate flooring – 8 hours
- By October 18, 2008: Complete building of four separate sections of bookcases to be assembled in the room – 40 hours
- During the fourth week of October Finish coat bookcases – 8 hours
- By October 25, 2008: Install bookcase – 4 hours
- During the last week in October: Frame creative artwork – 6 hours
- By November 8, 2008: Build toy box/bench – 10 hours
- During the week November 10-15: Finish coat toy box/bench – 4 hours
- During the week November 10-15: Add books/accessories to shelving – 2 hours

Identify Pertinent Literature or Resources:

- Internet sources including: DIY, HGTV, and other websites on construction
- Woodworking magazines including: Handyman and Woodworking
- Television shows including: Cool Tools, This Old House, and Ask This Old House
- Local and college library systems
- Speak to knowledgeable people in the field
- CBIR
- Textbooks on creativity tools

Appendix B
Sample Sketches, Cutlist, and Photographs

Sample Sketches

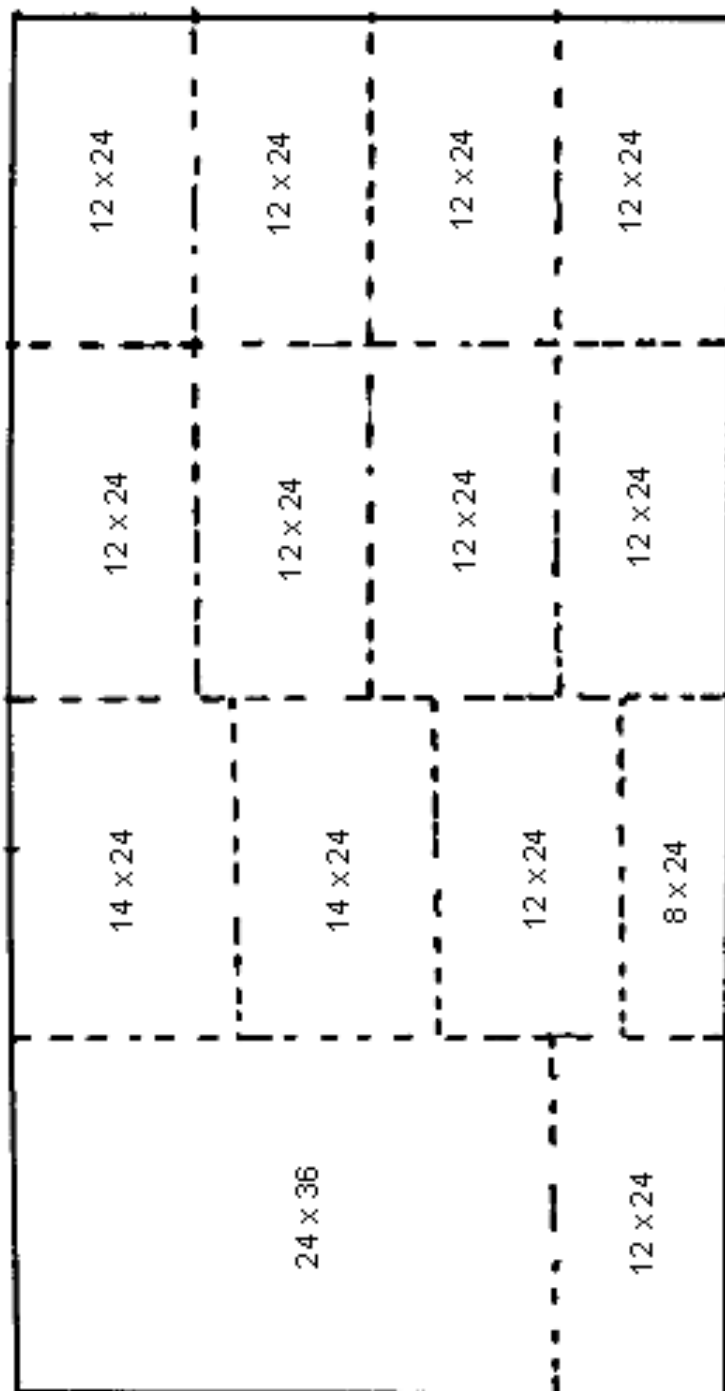


Figure B 1. Sample cutting layout on a 4' x 8' sheet.

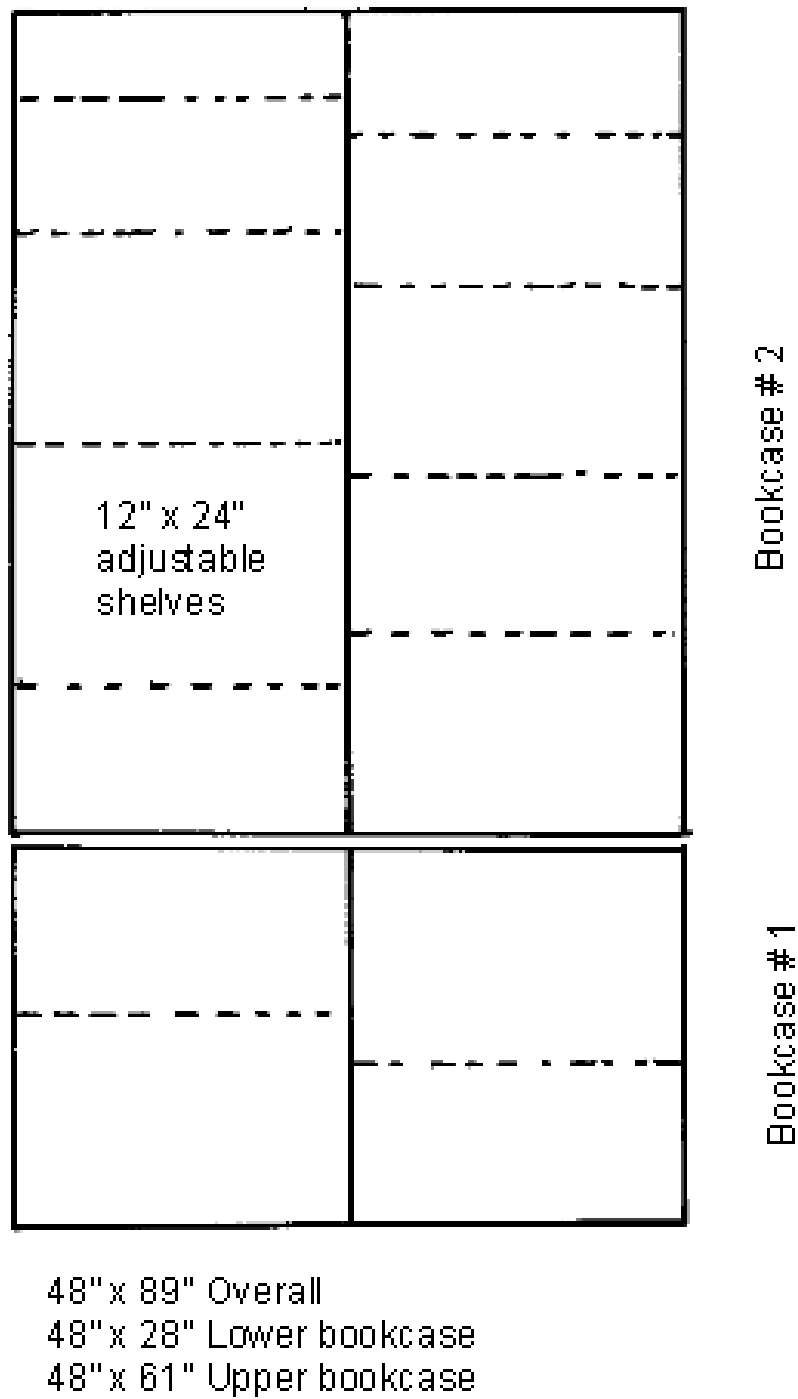


Figure B 2. Sample bookcase layout.

Cutlist for bookcases

3/4 " Oak plywood

Number of pieces	Size in inches
8	12 x 62
5	12 x 28
3	14 x 28
2	14 x 48
6	12 x 48
26	12 x 24
1	24 x 36
2	14 x 24

1/4" Oak plywood

Number of pieces	Size in inches
2	28 x 48
1	28 x 24
2	48 x 62
1	28 x 24

Cutlist for toy box

3/4 " Oak plywood

Number of pieces	Size in inches
2	18 x 18
3	18 x 35
1	20 x 36 3/4

1 3/4 " Oak board

4	1 3/4 x 1 3/4 x 18
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Photographs of project progress



Figure B 3. Resurfacing of the walls.



Figure B 4. Sanding of the walls.



Figure B 5. Priming complete.



Figure B 6. Painting complete.



Figure B 7. Installing new flooring.

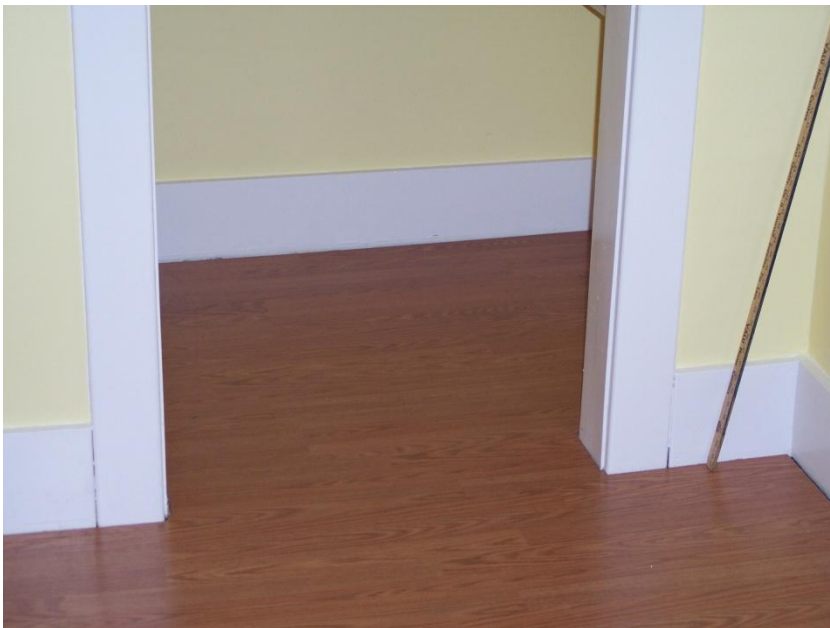


Figure B 8. Flooring complete.



Figure B 9. Dry fitting of nearly completed bookcases.



Figure B 10. Installation complete.



Figure B 11. Desk shown in upright position.



Figure B 12. Wall of artwork.



Figure B 13. Fish-eye view #1 of completed room.



Figure B 14. Fish-eye view #2 of completed room.

Tools used



Figure B 15. Sliding compound miter saw.

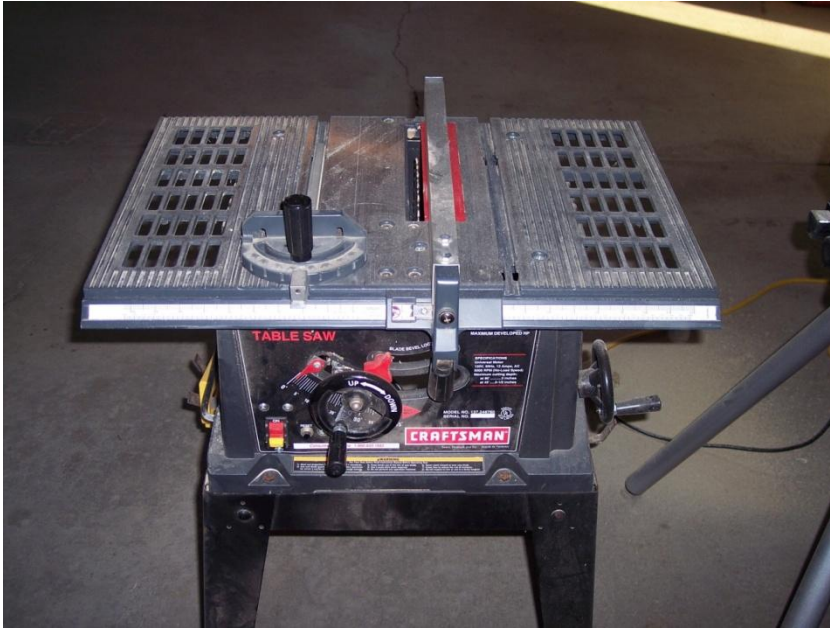


Figure B 16. Table saw.



Figure B 17. Circular saw with cutting guide.



Figure B 18. Table top band saw.



Figure B 19. Table top surface planer.



Figure B 20. Cordless drills and pocket joiner.



Figure B 21. Quick adjust clamps.



Figure B 22. Wiremold components.

Appendix C
Approximate Costs of Materials

Approximate Costs of Materials

Drywall compound	\$40
Primer	\$25
Ceiling paint	\$25
Wall paint	\$50
Trim paint	\$25
Underlayment	\$50
Oak flooring	\$350
WireMold	\$70
Lighting	\$50
Oak plywood	\$400
Oak trim	\$100
Polyurethane	\$55
Hardware	\$65
Curtains	\$30
Bi-fold doors	\$35
Miscellaneous items	\$150
Total	\$1,520

Hardware items include:

Hinges, casters, closer, surface bolt, shelf pins, and levelers

Miscellaneous items include:

Screws, nails, sand paper, saw blades, glue, masking tape, caulk, etc.

Appendix D
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